

PSI 428 Attentional Processes

Week 2.2a
Theories of Attention

Learning Objectives

- Understanding the information processing approach in cognitive psychology
- Learning basic theories of attention
- The homonculus problem
- Learning fundamental methods of attention research

The Information Processing Approach

ULRIC NEISSER (1928–2012)
Father of cognitive psychology



"Cognition refers to all the processes by which sensory input is transformed, reduced, elaborated, stored, recovered, and used ... [including] such terms as sensation, perception, imagery, retention, recall, problem solving and thinking."

The Information Processing Approach

- Mind is an information processing system whose function can be revealed most clearly by systematic observations of human behavior in laboratory situations.



psychologist Donald Broadbent, who was Director of the Medical Research Council Cognition and Brain Sciences Unit from 1958-1974.

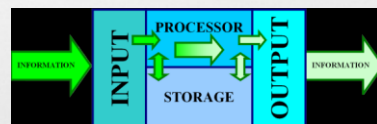
Perception and Communication

D. E. Broadbent

Note: This is not the actual book cover

The Information Processing Approach

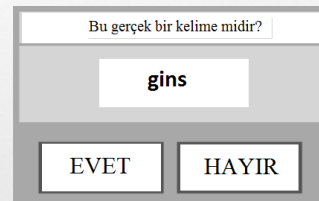
- "psychological processes could be described by the flow of information within the nervous system."



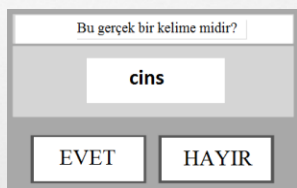
The Information Processing Approach

- Giving a mechanistic explanation of mind at the functional level.
- Analyze mind in terms of different subsystems (that form, retain and transmit information).

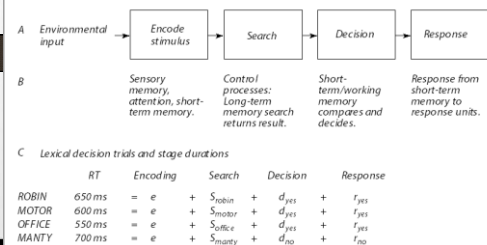
The Information Processing Approach



The Information Processing Approach



An (Incorrect) Information Processing Model of Lexical Decision



The Information Processing Approach

- it was valuable to analyze human functions in terms of the flow of information through the organism.... "nervous system as an information processor"

